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The Impact of Cancelling the Lavi on Israel's Aircraft Industry

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Summary

After more than five years in research and development, Israel cancelled its controversial Lavi fighter aircraft program in late August because spiralling cost overruns made the plane unaffordable. The adverse impact on Israel's indigenous aircraft industry, which will lose more than \$200 million per year in Lavi contracts, however, was minimized with Israel's decision to allot the industry its full complement of Lavi funding this year and to promise it \$100 million in annual subsidies in future years. Moreover, many of the 3,000 engineers and technicians likely to lose their Lavi-related jobs will probably be rehired by other Israeli high-tech firms or by the Israeli military. Despite a blistering domestic debate, the decision to cancel Lavi has not damaged the Labor Party's public standing--even though Labor led the charge to scrub Lavi.

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Israel's decision in late August to kill the Lavi fighter aircraft program will force the country's largest defense firm--Israel Aircraft Industries (IAI)--to restructure itself. The state-owned firm will lose more than \$200 million per year in Lavi contracts as a result of cancelling the plane and additionally faces stiff penalties for terminating Lavi-related contracts with US firms. Moreover, as many as 3,000 skilled IAI workers face lay-offs. Some of these workers may be considering job offers outside Israel--such as assisting South Africa modify Mirage III fighters. But many probably will be rehired by IAI to continue to work on advanced avionics and alternative airframe programs

This memorandum was prepared by the Israel-Jordan-PLO Branch, Arab-Israel, Office of Near Eastern and South Asian Analysis at the request of Philip Wilcox, Deputy Assistant Secretary of State, NEA/IAI. Information as of 13 October 1987 was used in its preparation. Questions and comments should be addressed to Chief, Arab-Israeli Division

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and others will be absorbed by private Israeli high tech firms. [redacted]

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The full impact of scrubbing the Lavi has been minimized and delayed with Israel's decision to allot IAI its full complement of Lavi funding this year--even though the plane is no longer being developed. Additionally, the 22,000-strong, politically potent firm has been promised \$100 million in annual government subsidies to help defray defunct Lavi contracts. Part of these subsidies will go to continued development of the third Lavi prototype, which is to be used as a testbed for Israeli avionics systems [redacted]

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[redacted] This will further soften the impact of killing the program and will allow Israel Aircraft Industries to retain many of its key aeronautics experts. [redacted]

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Lavi--Only One of IAI'S Problems

[redacted] -before the Lavi was killed. Cuts in Israel's defense budget recently have reduced orders by the military for IAI products, forcing the company increasingly to seek overseas markets. But even with aggressive marketing strategies, the Israelis recognized that export sales were unlikely to stave off growing budget deficits. Instead, IAI had formulated plans--also before the Lavi program was scrapped--to fire as many as 1500 employees. [redacted]

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Personnel benefits at IAI are unusually attractive and prohibitively costly for the company. Engineers work only about 32 hours per week and are paid better than the average Israeli worker, who puts in 47 hours per week. Severance benefits, which have become particularly important with the Lavi's termination, are also extremely generous. Each engineer laid off will be paid the equivalent of four years' salary--about \$55,000. Additionally, a wasteful 25 percent of IAI's workforce are service and administrative employees, some of whom were targeted for lay-offs long before Lavi's cancellation. [redacted]

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Lavi Termination Forces Restructuring

Lavi contracts comprised nearly one-fourth of IAI's workload during the past five years. More than 5,000 of IAI's 22,000 workers devoted their efforts to developing the Lavi, and the company received more than \$200 million annually for Lavi contracts. Largely because of money for Lavi development, IAI expanded to an unmanageable size, [redacted] and several unprofitable factories have survived only because of infusions of US grant aid for the Lavi. The Ramta plant in Beersheba, a perennial money-loser for IAI, is a good example. Despite losing money for years, the plant remained open in expectation of fabricating components for the Lavi. The Lavi's scrubbing will allow IAI management to close the plant and cut losses. [redacted]

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IAI staked much of its international reputation on developing and manufacturing the Lavi and now must rebuild its image by boosting other less prestigious weapons programs. Although the principal focus of IAI in past years has been on the Lavi, the company produces and is developing a wide variety of products which can employ many, but not all displaced Lavi workers. Some of the more promising projects are:

- Phantom 2000 Radar: A new, advanced technology radar built by the electronics firm ELTA that IAI hopes to incorporate in F-4E aircraft.
- Falcon Airborne Early Warning Aircraft: The future Israeli electronics collector to complement E-2C Hawkeye and Boeing 707s. This Israeli version of AWACS likely will get additional funding with Lavi's demise. A potentially lucrative export product.
- Kfir and A-4 upgrade programs: Since the air force will not get Lavis, IAI could modernize these older platforms, modernizing the avionics and airframes to extend their lives to the late 1990's when advanced model US fighters will be available.
- Remotely Piloted Vehicles: Some of IAI's hottest sellers and a longstanding Israeli strength. An IAI subsidiary is working on the Harpy attack RPV--and expects increased air force orders in the wake of the Lavi's cancellation. The US Navy has purchased IAI's Pioneer RPV.
- Precision Guided Weapons: IAI is developing alternative systems to the successful Popeye guided munition produced by Israel's weapons development authority Rafael and is also working on modification kits for existing unguided weapons.
- Anti-tank Missile Systems: The Nimrod, a 26-kilometer range missile system that can be mounted on jeeps, aircraft, or tripods, currently is in production at IAI. 25X1
- Arrow Anti-Tactical Ballistic Missile System: IAI hopes to fund 90 percent of Arrow's research and development costs through the US Strategic Defense Initiative program. Lavi funding requirements precluded sufficient funding for the program, but with Lavi's demise Israel will probably devote more energy and divert Lavi-related workers to Arrow development. 25X1

Israeli Cabinet Eases Lavi Termination Impact

The impact of cancelling Lavi on IAI was substantially reduced by the Israeli Cabinet decision to allocate IAI its full share of Lavi funding--about \$200 million this year--even though it is no longer developing the aircraft. This funding will likely be used in large part for termination costs and severance pay for discharged IAI workers, and to augment existing research and development of other programs.

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Defense Minister Rabin estimates that 3,000 IAI employees will lose their jobs as a result of the Lavi's demise, according to public interviews. But IAI intends to implement the lay-offs gradually throughout the remainder of the Israeli fiscal year, which ends on 31 March 1988. The 3,000 lay-offs will have only a minimal effect on Israel's overall unemployment rate--now at just over six percent--

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that as many as 500 Lavi-dedicated engineers have approached the South African company working on the Cheetah--the Israeli-styled adaptation of Mirage fighter aircraft. Although South Africa probably could not employ all 500 engineers on the relatively simple and small-scale Cheetah modification program, some Israeli engineers probably will take advantage of the longstanding close ties between the two countries' defense sectors to take lucrative positions in South Africa.

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Recent articles in the Israeli press have downplayed the impact on employment of cancelling the Lavi--Lavi proponents like former Minister without Portfolio Arens initially claimed that over 6,000 high-tech jobs would be permanently lost. Now a variety of Israeli assessments estimate that no more than half this number of jobs will be forfeited. Although of concern to IAI officials who worry about morale and image problems, these revised job loss figures indicate that the Lavi's death will not significantly increase Israel's overall unemployment rate and also will not appreciably erode the country's high-tech capability.

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The most serious impact will be on IAI itself--and particularly on the engineering division which will be hardest hit by lay-offs since much of the work on Lavi so far has been research-oriented. To minimize the impact, IAI is attempting to make the transition into new programs as quickly as possible. Many of the workers not absorbed likely will be hired by other high-tech firms in Israel, and others may be hired by the military.

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Implications for the US

Most Israelis believe that the Lavi was cancelled because of US pressure. As a result, many Israelis believe the US owes them a debt and expect the US to help pay for termination penalties, to provide funding for alternative programs, and to increase cooperation and joint ventures in weapons development. IAI specifically wants US funding for a variety of its programs, including the Arrow anti-tactical ballistic missile which it hopes can be funded through the Strategic Defense Initiative Office. [REDACTED]

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The domestic political debate over the Lavi has been blistering. Trade Minister Sharon and Arens continue, weeks after the plane's termination, to attempt to resuscitate the program and blame the Labor Party for what they describe as the action most damaging to Israel's national security since the 1973 Arab-Israeli war. They repeatedly have accused Labor--specifically Peres and Rabin--of buckling to US pressure. Although their attempts to save the Lavi almost certainly will fail, Arens and Sharon appear to want to keep the Lavi issue alive in anticipation of the national election scheduled for November 1988. [REDACTED]

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Their attacks so far do not appear to have damaged Labor's public standing. A recent public opinion poll--conducted after the Lavi was cancelled--shows popularity gains for Peres and Rabin. Likud ministers stayed at their previous levels or declined slightly, except for Finance Minister Nissim, who was the only Likud cabinet minister to vote for cancellation and whose popularity increased significantly according to the latest poll. [REDACTED]

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Labor's longer-term prospects will depend heavily on whether most of the approximately 3,000 IAI workers likely to be laid off are rehired fairly quickly. If they are, Labor's public stock likely will not be damaged by Lavi's demise--and may even improve. But if a large number of these highly skilled and valued engineers and technicians emigrate to jobs abroad or remain unemployed, Labor probably would become vulnerable to Likud's stinging attacks. [REDACTED]

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The Israeli Air Force Reaction

Israel's air force long opposed the Lavi program on the grounds that the money could be spent more efficiently by buying proven US aircraft, with enough left over to purchase other badly-needed weaponry. For years, the future plans have been complicated by the Lavi's uncertain future and ravenous funding demands. With the departure of the expensive and controversial fighter, air force planners for the first time in over five years can develop a cohesive long-term force plan and explore alternative projects and weapons systems.

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Top on the air force priority list are 75 advanced F-16 fighters, as many as 15 new F-15D aircraft, a squadron of attack helicopters--preferably modern AH-64 Apaches--and possibly a squadron of assault helicopters as well. The air force also is considering fitting a limited number of aging F-4E aircraft with PW-1120 engines, at least 30 of which were ordered for the Lavi. Israel's upgrade program for the F-4's--known as Phantom 2000--originally included only fuselage work and electronics improvements designed to extend the life of the aging planes into the next century. IAI has marketed a more comprehensive engine replacement program abroad to the Japanese, Turks, and Germans, but lacked the funds to purchase the PW-1120 engines for Israel's own air force.

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But the IAF appears to be overestimating the amount of funds likely to be freed up by cancelling the Lavi. The navy and ground forces also have high priority procurement and modernization plans and certainly will fight for their share of Lavi money. For its part, the navy is planning to procure expensive submarines and corvettes, and to purchase them with some of the money the air force hopes to secure. The army wants more money to train its reserve force and is looking to purchase modern anti-tank missiles, armored reconnaissance vehicles, and a variety of upgrade programs for its existing tank fleet.

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Thumbnail Sketch of Israel Aircraft Industries

Israel Aircraft Industries (IAI) was founded in 1953 as a maintenance base for the Israel Air Force and El Al Airlines. In the past 34 years, it has grown from a one hangar operation with 200 employees, to an enormous aerospace complex with over 22,000 employees. [redacted]

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IAI's workforce includes about 4,000 engineers, 4,500 technical engineers, 8,200 production workers, and 5,600 service and administration employees. Of these numbers, about 5,000 were involved in the Lavi's development--including about 1,500 engineers which IAI officials consider crucial to its future as a high-technology center. [redacted] that research and development alternatives to Lavi within IAI will provide employment for about 3,700 of the 5,000 currently involved with the Lavi program. [redacted]

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IAI is organized into five divisions:

--The Aircraft Manufacturing Division produces the Kfir fighter, Arava transport plane, and Westwind business jets, along with jet engine components, machine parts, and mini-RPVs. Scrapped plans for producing Lavi fighters in the 1990s are unlikely to disturb the division since it had not begun to gear up seriously for the operation.

--The Electronics Division includes four plants--ELTA, TAMAM, MBT, and MLM. ELTA produces radars, computers, communications, and has done considerable work on Lavi avionics--as much as 60 percent, [redacted] Much of this work is applicable for other programs or is valuable as pure research on future aircraft systems. ELTA views the Lavi's cancellation as only a minor setback.

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--The Engineering Division provides support to the manufacturing units and is Israel's center for aircraft design and development--including most of the work on the Lavi airframe. Most of the lost employment will come from this Division--thus IAI's capability to design future aircraft systems will decline.

--The Technologies Division produces patrol boats, armored cars, artillery, and a wide variety of support systems such as aircraft seats, helicopter rotor blades and parts, tank mine plows, and hydraulic systems for the Merkava tank. The impact of cancelling the Lavi will be minor for this Division.

--Bedek Aviation Division provides aircraft repair and overhaul services. In addition to maintaining Israeli aircraft, it has

subsidaries in Europe working on NATO aircraft and is negotiating with Turkey to modernize its F-4 fleet. The Lavi decision will not significantly affect Bedek. [REDACTED]

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**SUBJECT: The Impact of Cancelling the Lavi on Israel's Aircraft
Industry** [redacted]

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DDI/NESA/AI/I [redacted] **13 Oct 87**

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